

WHAT IS CLAIMED IS:

1. An ink cartridge for an ink jet printer, comprising:

a housing having a bottom wall and an opening;

an ink supply port formed on the bottom wall;

a through hole formed in said lid and connecting the inside and outside of the ink cartridge;

an air vent section formed on said lid which communicates with atmospheric air when the ink cartridge is in use;

a circuitous channel formed in an outer surface of said lid and connecting said through hole to said air vent section, said circuitous channel comprising a tunnel part which is a hole formed in said lid;

a first seal member affixed to said lid over said through hole and one part of said circuitous channel; and

a second, removable seal member affixed to said lid over said air vent section, said second seal member being removed when the ink cartridge is in use.

2. The ink cartridge of claim 1, wherein said second seal member is spaced apart from said first seal member for defining a non-sealed portion, and said non-sealed portion of said lid is disposed over said tunnel part of said circuitous channel.

3. The ink cartridge of claim 1, further comprising a groove formed in an inner surface of said lid and connecting to said tunnel part of said circuitous channel.

4. The ink cartridge of claim 3, further comprising a third seal member affixed to the inner surface of said lid covering said groove.

2024-07-01 09:09

5. The ink cartridge of claim 1, wherein said tunnel part of said circuitous channel is inclined to connect directly to said air vent section, and the depth of said tunnel part is shorter than the thickest part of said lid.

6. The ink cartridge of claim 1, further comprising ribs formed on the inner surface of said lid at portions thereof corresponding to said circuitous channel.

7. The ink cartridge of claim 1, further comprising a plurality of ink chambers for containing different inks therein, said ink chambers being formed within said housing, and a plurality of said circuitous channels and said through holes a respective circuitous route and through hole corresponding to a respective one of said ink chambers.

8. The ink cartridge of claim 7, wherein the ink cartridge comprises three ink chambers, three circuitous channels and one air vent section connecting to all the three circuitous channels.

9. The ink cartridge of claim 7, wherein the ink cartridge comprises five ink chambers, five circuitous channels and two air vent sections connecting to at least two of said five circuitous channels.

10. The ink cartridge of claim 1, further comprising a porous member fitted within an ink chamber defined by said housing and said lid, said porous member being impregnated with ink.

11. The ink cartridge of claim 1, further comprising a recess formed in the outer surface of said lid, and said air vent section being formed within said recess.

12. The ink cartridge of claim 11, wherein an opening of said air vent section is formed in a side wall of said recess.